



STATE OF UTAH

DRUG UTILIZATION REVIEW (DUR)

ANNUAL REPORT

1999

EXECUTIVE SUMMARY

The Utah Health Care Financing DUR Program managers continue to deal with complex medical and drug issues. They have dealt with multiple challenges this past year. Fifteen million more dollars were spent this year than the previous year. The number of recipients has increased by five thousand. The average price of a prescription has increased by \$3.75 which is consistent with the 8-11% increases of previous years. Since there were 2,196,260 prescriptions filled in fiscal year 1999, the increase in cost of a prescription amounted to more than 8.2 million dollars. The sharp rise in the average wholesale price of generic drugs, as well as extremely costly new drugs coming onto the market, is causing dramatic increases in drug prices. New drugs are the standard of care as soon as they come onto the market. The atypical antipsychotics used in mental health are prime examples of this. Mental health is one of the fastest growing sectors of the drug program. Utilization of the four atypical antipsychotic drugs increased by 39.2% or 2.4 million dollars last year alone. Mental health, as a whole, accounts for more than 30% of the drug budget. Efforts to control spending are aggressively being pursued. The prospective drug utilization review program, the co-pay program and the cumulative 30-day maximum units program jointly saved \$2,134,650 for fiscal year 1999. The rebate program is expected to return more than fifteen millions dollars to the Department for fiscal year 1999.

The DUR Board continues to serve well and has been instrumental in improving both quality of care and access to medications. The DUR Board's use of the cumulative 30-day maximum units program has clarified the extent to which narcotic drug misuse/abuse will be tolerated through the drug program.

TABLE OF CONTENTS

Executive Summary	i
List of Attachments	iii
I INTRODUCTION	1
II RETURN ON INVESTMENT	1
A. Drug Rebate Program	2
B. PRODUR Program	2
C. CO-pay Program	3
D. Cumulative 30-Day Maximum Units Loop	3
III CASE MANAGEMENT	4
A. Hemophilia Case Management	4
IV OPERATING EXPENSE	5
V PATIENT COUNSELING	5
VI DRUG PROGRAM DATA	5
A. Medicaid Drug Program Data	5
B. Consumer Price Index (CPI)	7
C. Break-Out For Name Brand vs. Generic	9
VII DRUG UTILIZATION REVIEW	10
A. Atypical Antipsychotic Drug Agents	10
B. Atypical Antipsychotic Agents-Pediatric Utilization	12
C. Atypical Antipsychotic Agents-Adult Utilization	13
VIII MANAGED CARE ORGANIZATIONS	13
IX MANAGEMENT OF SELECTIVE NEW DRUGS	14
X CONCLUSION	15

LIST OF ATTACHMENTS

1. Hemophilia Program Factor Medication Usage Report
2. Detail for Hemophilia Patient Work up
3. Mr002 - Medical Assistance Program Status, Fiscal Year End
Mr113 - Medical Program Analysis by Service, Fiscal Year
End
4. Consumer Price Index: Prescription Drugs; Medical Care; All
Items
5. Atypical Antipsychotic Drug Utilization Work Sheet by GCN
(Generic Code Number) and Client. Report Format for
Typical Drug Utilization Review Study
6. Work Sheet Showing Comparison Between Fee-for-service
Clients to HMO Clients to LTCF Clients



STATE OF UTAH
DRUG UTILIZATION REVIEW (DUR)
ANNUAL REPORT
1999

I INTRODUCTION

The Utah Health Care Financing Drug Program continues to show an upward spiral in both costs and utilization. The number of recipients increased significantly, going from 125,526 in fiscal year 1998 to 130,686, a 4.1% change. The average cost per prescription increased \$3.75, an increase of 11.4%. There were 2,196,260 prescriptions filled in fiscal year 1999; the increase in prescription cost amounted to more than \$8.2 million. Part of the increased cost can be attributed to increased prices for older established products and part of the increase cost can be attributed to the use of newer more costly products such as the atypical antipsychotics. Direct to consumer advertising (DTC) by the manufacturers has proven to be an effective marketing tool. Patient utilization of prescriptions has increased from 1.32 prescriptions per month to 1.4 prescriptions per month on average. DTC advertising increases utilization and also causes patients to switch from older less costly medications to newer more costly medications. It should be noted that the vast majority of name-brand pharmaceutical manufacturers have enjoyed a double digit increase in sales for this past fiscal year. This is in spite of projected lower sales by Wall Street. The DUR Board continues to play an active and positive role in program development. The Drug Program Managers have made several changes in the drug program that has helped contain costs.

II RETURN ON INVESTMENT

Projections into the foreseeable future indicate that the pharmacy program will continue to have a double digit escalation in cost. The drug program managers over the years have implemented several strategies that make a positive impact on the drug program. The biggest offset continues to be the rebate program. New programs or subroutines have been added. Some of the more successful programs are outlined below.

A. Drug Rebate Program

The rebate program will return more than fifteen million dollars to the state for fiscal year 1999. Table 1 shows the total amount of dollars returned to the Division through the Federal Rebate Program since the program began. When all rebates are collected for FY99, the program will have collected more than seventy-eight million dollars from 1991 to 1999. All calculations in this report are performed before the 19.5% rebate has been taken into account unless otherwise stated.

**Table 1
Drug Rebate by Fiscal Year**

Fiscal year	dollar amount	cumulative total
'91(last qtr)*	579,358	579,358
'92*	5,278,872	5,858,230
'93*	6,174,900	12,033,130
'94*	7,350,129	19,383,259
'95	8,049,745	27,433,004
'96	8,996,077	36,429,081
'97	9,361,469	45,790,550
'98	10,620,637	56,411,187
'99	14,058,741	70,69,928
2000YTD	8,920,564	79,390,492

*books are closed. No further collection anticipated.

B. PRODUR Program

The expanded Prospective Drug Utilization Review (PRODUR) modules of the claims payment's Point of Sale (POS) program has continued to post impressive savings to the program. The PRODUR's biggest contribution is adverse drug event avoidance which does not show up as a dollar amount. By preventing a serious adverse drug event, patients are spared unnecessary hospitalizations and/or trips to the doctor, etc. What is shown

is the dollar amount reversed from paid claims due to PRODUR interventions. For Fiscal Year 1999 (FY99), the PRODUR program returned \$1,052,309. The PRODUR Program ran against 2,196,160 claims in FY99 of which 22,719 claims were reversed. On average, 21.2% of submitted claims resulted in an adverse drug warning being sent. Of those claims with warnings, 5.7% were reversed.

C. Co-pay Program

The pharmacy Co-pay Program, was implemented July 1, 1997. The one dollar co-pay has resulted in a return of more than \$772,628 to the state for FY98, \$912,896 for FY99 and \$325,095 for the first four months of FY2000. The co-pay program exempts children, pregnant women, residents in nursing homes and a few other groups of recipients. The \$1.00 co-pay is only charged on the first five prescriptions for any given month. Co-pay is the same for brand name prescriptions and generic prescriptions.

D. Cumulative 30-day Maximum Units Loop

The newest control implemented in the pharmacy program is the cumulative 30-day maximum units loop. Table 2 shows the results of this program. The cumulative 30-days maximum units loop limits the total number of doses a client can have for a given drug or group of drugs for any thirty-day period.

Three analgesic pain medications in the program are closely related to each other, although the correlation is not perfect. The "tryptan" such as Imitrex®, are used exclusively for migraine headaches. Experts in the field have stated that five to ten doses is the maximum that should be allowed for any given month. Medicaid has set the maximum number of doses at eighteen. Stadol NS® is a popular analgesic used for migraine and other short term pain situations. It is not intended for long term pain control. Stadol NS can be habit forming and may cause dependence. Medicaid has set the limit for Stadol NS inhalers at four 2.5ml vials per month. The narcotic/acetaminophen tablet (narc/APAP) formulations are widely used for pain control. The cumulative 30-day maximum units loop groups a broad number of different narc/APAP formulations into one lump for purposes of control. The common denominator is that each formulation contains acetaminophen, which is abbreviated as "APAP". Four grams or more of acetaminophen per day on a daily basis is highly toxic to the liver. The narc/APAP combinations carry a double liability of liver toxicity due to APAP, and addiction due to the narcotic faction. Utah has limited these formulations to 180 tablets per month based on the APAP toxicity. Misuse and abuse of the narc/APAP has always been a problem for Medicaid.

There is an indirect but real correlation for substituting narc/APAP for Stadol-NS and/or "tryptans" when the latter two are maxed out. There was an increased utilization of the narc/APAP group during the studied time period. Given that, there is still a considerable savings achieved as shown by utilization patterns of the three agents listed in Table 2 for a two-year period. The first year is before the cumulative 30-day maximum units loop was in place and the second year is after it was in place. Continued savings from limiting these agents are guaranteed. The use of the cumulative 30-day maximum units loop is being expanded to other drug groups that demonstrate utilization patterns of abuse or misuse. The cumulative 30-day maximum units loop is entirely controlled by the computerized point of sale program.

Table 2
Drugs on Cumulative 30-Day Maximum Loop

drug	year	projected units	cost
STADOL NS*	1998	2,583	\$179,518
	1999	1,425	\$ 99,037
savings		1,158	\$ 80,481
"TRYPTANS"***	1998	44,450	\$711,200
	1999	38,144	\$610,304
savings		6,306	\$100,896
NARC/APAP***	1998	1,902,186	\$ 93,397
	1999	2,145,204	\$105,329
loss		<243,018>	<\$11,932>
total savings			\$169,445

* based on current Medicaid cost of 69.50/vial

** based on estimated cost of \$16.00/dose

*** based on MAC price of the most common dosage form of hydrocodone/APAP-

5/500

The four programs, rebate, co-pay, PRODUR, and 30-day cumulative limits, in aggregate will have returned more than seventeen million dollars for FY99.

Other tools used to limit access to drugs include limits by age, sex, minimum/maxim in quantities and prior approval. These tools are effective, but results are much harder to quantify.

III CASE MANAGEMENT

A. Hemophilia Case Management

The hemophilia case management program began operations in June 1998. Attachment 1 shows that there was a 10.1% increase in blood factor utilization for FY99 but there was a subsequent 36.1% increase in cost. Part of this increase cost was due to a shortage of factor necessitating the purchase of factor-nine on the "open market". However, there has been a general increase in the price of factor this year. One client decreased his factor-nine needs by more than 200,000 units but due to the shortage of factor, his costs increased more than \$182,000. Medicaid served fifteen hemophiliacs in FY99. Five old clients are no longer covered by Medicaid. As shown in Attachment 1, five new clients have entered the program during FY99. Those five new clients jointly have cost more than \$200,000 compared to less than \$100,000 for the five departing clients the previous year. These five new clients account for almost the entire increase in factor utilization. Hemophiliac clients are by definition, outliers. They are high utilizers of hospital care, emergency room use and pharmaceuticals. Had the national shortage of factor not occurred last year, the program would be solidly in the black.

When the case management program began, the Division discovered that this unique group of clients has been receiving little or no education on the management of their disease. Further, little or no physician involvement was apparent so adjustments of factor based on weight had not been carried out routinely. Two clients are HIV positive due to contaminated blood factor and four clients have hepatitis C due to contaminated blood factor. Attachment 2 shows the type of detail that the Division now receives quarterly regarding this client group. These clients are now maintaining logs for blood factor utilization, participating in educational opportunities, under close supervision of a physician, and are contacted at least monthly on their disease status.

IV OPERATING EXPENSE

All operations are done in-house excepting the development of drug criteria sets which are contracted out to the University of Utah's College of Pharmacy. Contractual expenses are \$20,000 for FY99. Fixed costs included 0.4 FTE (full time equivalent) at approximately \$35,000. Variable expenses include computer time, programming time \$7,5000, and Amber Sheet printing and mailing. The Amber Sheet is a newsletter sent to providers who are involved with the drug program. Members of the DUR Board serve without pay. The fixed costs did not exceed \$100,000.

Total operating costs excluding drugs are approximately \$135,000.

V PATIENT COUNSELING

The Division of Commerce and Professional Licensing identified and brought before the State Board of Pharmacy one pharmacist for educational interviews for failure to counsel. Utah has less than 375 in-state pharmacies in business. Good patient compliance in taking prescriptions as directed is the most effective way to minimize costs and avoid waste. Utah pharmacists continue to show a high degree of professionalism.

VI DRUG PROGRAM DATA

An understanding of the total drug program gives insight into program needs and points the way to new goals.

A. Medicaid Drug Program Data

Table 3 gives a summary of fiscal and numerical trends in client enrollment and expenditures for fiscal years 1993 through 1999 and part of fiscal year 2000. The data was extracted from **Attachment 3** (MR113 & MR002) which provides monthly review of prescription activity. At the close of FY99, the pharmacy program had spent \$79,975,258, an increase of \$15,237,352 or 23.5% from FY98.

Eligibles increased from 217,775 to 232,228 or an increase of 6.6%. Recipients increased from 125,526 to 130,686 or an increase of 4.1%. Recipients are defined as eligibles who use prescriptions. The average price of a prescription increased by \$3.75. Since there were 2.196 million prescriptions filled in FY99, the increase in prescription price amounted to more than \$8,235,000.

Table 3
Drug Program Summary

	FY '93	FY '94	FY '95	FY '96	FY '97	FY '98	FY'99	FYTD 2000 (thru Nov.)
Total Eligibles	205,905	217,680	226,817	225,684	225,493	217,775	217,775*	121,346
Total Rx Recipients	111,078	120,763	119,351	118,279	108,208	125,526	130,686	89,508
Total Rx	1,556,444	1,566,306	1,775,369	1,834,759	1,673,144	1,981,932	2,196,260	936,366
Dollars Paid Out	31,459,079	38,799,402	42,035,638	48,293,006	49,391,618	64,737,906	79,975,258	37,625,284

% yearly budget increase		23.3%	8.3%	14.9%	2.2%	31.1%	23.5%	
Average Cost/RX	20.21	24.77	23.67	26.32	29.52	32.66	36.41	40.18
% increase in cost/RX	6.66	18.41	(3.23)	8.93	10.84	10.6	11.4	10.3%
Ave.Cost/RX with rebate factored in	15.83	19.87	19.17	21.41	23.49	27.57	29.31	
Ave. Rx/month per Eligible	0.62	0.60	.65	.68	.61	0.75	0.79	1.54
Ave. Rx/month per recipient	1.17	1.08	1.24	1.29	1.29	1.32	1.40	2.09
% change in RX/Mo./recip.		(7.7%)	14.8%	4.0%	0	2.3%	6%	49.2%

*number is not accurate due to computer glitch

The top ten therapeutic classes ranked by cost are shown in Table 4. On the left of the Table is the rank by cost. On the right of the table is the rank by prescription volume. The first two classes, antidepressants (H2J) and antipsychotics (H2L) account for more than 22.8% percent of the total budget. The third class, anti-convulsants (H4B) are unique because this group of drugs are being used extensively in mental health, as well as seizures. Possibly two thirds of this class is now being used in the mental health arena. Mental health medications, as a whole, account for nearly 31% of the pharmacy expenditures.

Table 4
Top ten therapeutic classes ranked by volume, dollars for FY99

RANKED BY COST	% CHANGE FROM FY98	DRUG CLASS	RANKED BY VOLUME	% CHANGE FROM FY98
1 \$ 9,348,813	27.1	H2J ANTIDEPRESSANTS	1 179,896	18.7
2 \$ 8,892,729	38.3	H2L ANTIPSYCHOTICS, NON PHENOTHIAZINES	6 69,678	17.7
3 \$ 6,396,362	26.4	H4B ANTI CONVULSANTS	3 117,270	16.5
4 \$ 4,361,317	44.4	D4E ANTI-ULCER, PPIs	14 42,479	37.9
5 \$ 2,970,571	28.9	H3A ANALGESICS, NARCOTIC	2 174,877	15.7
6. \$2,029,617	14.8	S2B NSAIDS,ANTIINFLAM.	5 91,410	10.8

7.	\$1,892,737	70.1	H2F ANTI-ANXIETY	7	67,044	9.7
8.	\$1,864,914	19.1	W1A PENICILLINS	4.	103,463	5.6
9.	\$1,800,185	33.8	Z2A ANTIHISTAMINES	8	65,389	19.9
10.	\$1,698,308	<15.6>	Z2D HISTAMINE H2 INHIBITO	16	37,712	2.8
	\$41,255,553				949,218	

The top ten therapeutic classes accounted for 51.5% of the cost and 43.2% of the volume for the drug program in FY99.

B. Consumer Price Index (CPI)

Table 5 displays the consumer price index for PRESCRIPTION DRUGS, MEDICAL CARE, and ALL ITEMS for the last five fiscal years.

Table 5
CONSUMER PRICE INDEX (FISCAL YEAR)

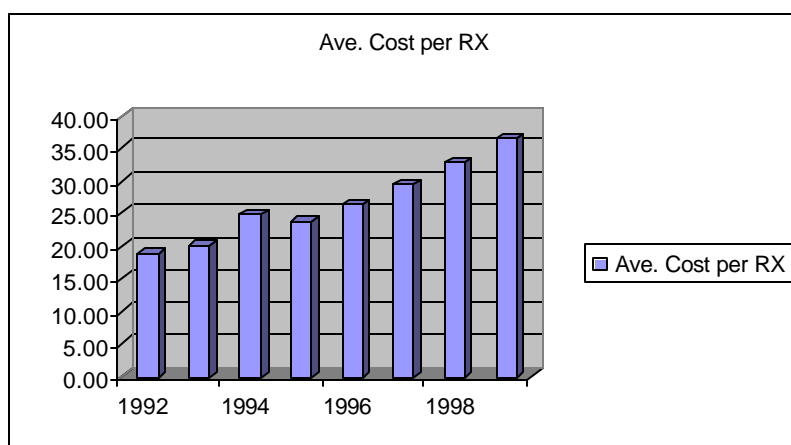
FISCAL YEAR Jul 1-Jun 30	PRESCRIPTION DRUGS	MEDICAL CARE	ALL ITEMS
1992	7.6%	7.5%	3.1%
1993	3.5%	6.2%	3.0%
1994	4.0%	4.6%	2.5%
1995	1.4%	4.5%	3.0%
1996	3.6%	3.6%	2.8%
1997	3.1	2.9	2.3
1998	3.3	3.2	1.7
1999	5.7	3.4	2.0

According to the drug industry, inflation has placed PRESCRIPTION DRUGS ahead of both MEDICAL CARE and ALL ITEMS. The data for this table was taken from the schedule of monthly cost of living index (**Attachment 4**) which was supplied by PhRMA (Pharmaceutical Research and Manufacturer's Association).

There has been an actual 11.4% increase in the average cost of prescriptions for the fiscal year 1999. This continues a trend of >10% increase in prescription prices for the last three years. For the first five months of fiscal year 1999 the average cost of a prescription has already increased 10.3%. Part of this is the unprecedented increase price in the generic drug sector since the first month of 1998. Also, there is a clear shift to newer, more costly and more effective drugs. This shift to the newer drugs is driving costs down in other sectors of the health care

dollar. The decreased patients with AIDS on Medicaid rolls are a case in point.

Figure 1
Average Cost Per Prescription



The average price of a prescription drug is rising much faster than the CPI would indicate. For Medicaid, the

average percent increase of prescription drug prices for 1996, 1997 and 1998, and 1999 are 8.93%, 10.8%, 10.6%, 11.4% respectively. Figure 1 shows a graphic representation of the increase in prescription prices over the most recent eight-year period.

IMS America¹, a company providing tracking and analysis of the pharmaceutical industry stated that the overall growth of the pharmaceutical market was 13% for the twelve months ending in September 1999 for the U.S. and 9% worldwide. According to IMS, "Of the major therapy classes in the U.S. market, the fastest growing are the antirheumatics, with sales growth of 51% during this period, followed by erectile dysfunction agents (up 42%),

¹ IMS Health Reports U.S. Market Continues To Drive Worldwide Pharmaceutical Sales Growth.
www.ImsHealth.com/html/news_arc. November 22,1999

antihistamines (up 28%), psycholeptics (up 24%) cholesterol reducers (up 23%, anti-epileptics (up 21%), antidiabetics (up 18%) and antibiotics (up 17%). The Medicaid population in Utah does not mirror this ranking.

C. Break-Out For Name Brand vs. Generic

Table 6 illustrates how the drug program identifies drugs by a dispensing code. The five codes in use at present are:

C = birth control/OTC/insulin
 B = brand name
 G = generic drugs
 F = antacids/influenza vaccine/pneumonia vaccine
 O = other

Table 6
 Drugs Sorted by Dispensing Code

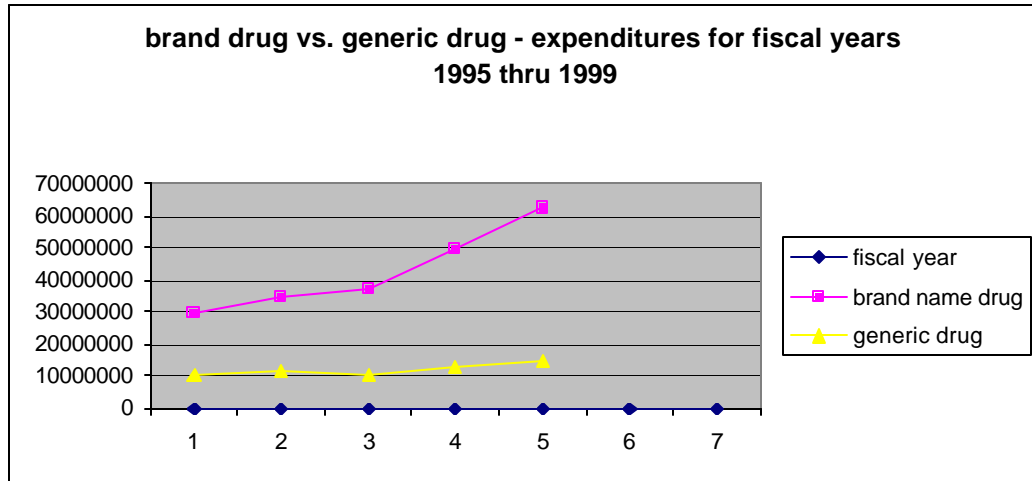
Fiscal Year	1995	1996	1997	1998	1999
Brand # RX	678,689	724,469	688,123	828,975	932,687
Brand cost	\$ 29,706,767	\$ 34,853,406	\$37,037,700	\$49,494,390	\$62,415,482
Brand ave. Cost	\$ 43.77	\$ 48.11	\$ 53.82	\$ 59.70	\$ 66.92
Brand cost % increase		9.9%	11.7%	10.9%	12%
Brand:% of total \$	70.8%	72.1%	74.8%	76.3%	77.7%
Brand:% of total Rx's	38.3%	39.6%	41.1%	41.8%	42.4%
Generic # Rx	916,688	927,956	817,023	966,589	1,062,651
Generic cost	\$ 10,350,850	\$ 11,414,862	\$10,526,807	\$12,972,999	\$15,073,121
Generic ave. Cost	\$ 11.29	\$ 12.30	\$ 12.88	\$ 13.42	\$ 14.18
Generic cost % increase		8.9%	4.7%	4.2%	5.6%
Generic: % of total \$	24.6%	23.6%	21.2%	20.0%	18.7%
Generic: # of total Rx's	51.7%	50.6%	48.8%	48.7%	48.3%
BC/OTC/insulin* #Rx	169,348	175,469	162,575	180,569	197,214
BC/OTC/insulin cost	\$ 1,871,883	\$ 2,002,287	\$ 1,903,926	\$ 2,349,577	\$2,738,139
BC/OTC/ins Ave.Cost	\$ 11.05	\$ 11.41	\$ 11.71	\$ 13.01	\$ 13.88
BC/OTC/insulin cost % increase		3.3%	2.6%	11.1%	6.6%
Antacids #Rx	6,309	5,358	5,005	4,995	4,338
Antacids cost	\$ 25,960	\$ 24,510	\$ 20,653	\$ 21,949	\$ 18,400
Antacids ave. Cost	\$ 4.27	\$3.85	\$4.13	\$ 4.39	\$ 4.24
Antacids cost % increases		(9.8%)	7.3%	6.3%	(3.5%)

*birth control/over the counter/insulin drugs

Codes C and F each receive a different dispensing fee than do B and G. B stands for brand name and G stands for generic.

Table 6 shows that brand name drug utilization has gone from 70.8% of dollar volume in 1995 to 77.7% of total dollars in 1999 while generic dollar volume has dropped from 24.6% in 1995 to 18.7% in

1999. Generic drug utilization leads brand name drug utilization



slightly, but if present trends continue brand name drug utilization

will exceed generics both in expenditures and number of scripts filled.

Figure 2 shows the rapid escalation of brand name drug expenditures compared to generic drug expenditures.

Figure 2
Fiscal years 1995 through 1999

VII DRUG UTILIZATION REVIEW

A. Atypical Antipsychotic Drug Agents

The atypical antipsychotics, risperidone, olanzapine, quetiapine and clozapine belong to the therapeutic drug class H2L, antipsychotics. The typical antipsychotics (phenothiazines) belong to H2G. Haloperidol and other non-phenothiazines also belong to H2L. The increase in cost for H2L has increased 38.3% this last fiscal year (FY99) ending June 30, 1999. The increase in cost for the four atypical antipsychotics for that time period was 39.2% which amounts to a \$2.4 million dollar increase. The use of these four atypical antipsychotics is the most rapidly growing cost to the drug program. No other class of drugs comes even close. Table 7 shows utilization of atypical antipsychotics for last six months of fiscal year 1997 (Jan. '97 through Jun. '97) and for fiscal years 1998 and 1999. The state fiscal year starts July 1.

Table 7
Atypical Antipsychotic Drug Utilization

fiscal year*	# Rx's	Cost in Dollars	#clients & net clients	cost per client/yr	# males	<5yrs	<10yrs	<15yrs	<20yrs
last six months of FY97 (Jan-Jun)	17,249	\$1,974,622	2,299 2,102net**	\$ 939	1090	4	50	214	355
FY1998	48,078	\$6,123,846	4,642 3,919net**	\$1,563	2250	8	133	472	738
FY1999	58,677	\$8,529,928	5,974 5,037net**	\$1,693	2501	22	210	625	939

* fiscal year starts July 1.

** total after therapeutic duplications between the atypicals factored out.

Table 8 shows atypical antipsychotic drug utilization by drug for last six months of fiscal year 1997 and for fiscal years 1998 and 1999. The Drug Program Managers and the DUR Board are attempting

to establish limits and guidelines for these products based on age and diagnosis. There has been intense lobbying from mental health advocacy groups to leave these drugs alone. However, present plans call for using the ICD.9 tool to control the use of these drugs as well as developing a set of guidelines for the use of these drugs in the pediatric sector. It is anticipated the ICD.9 tool will be imposed in the second calendar quarter of year 2000. A free standing committee of pediatric psychiatrists is working on a set of guidelines for the pediatric age group. At the present time, the four atypical antipsychotics are being used extensively for developmental disorders in the pediatric group. As shown in Attachment 5, a typical drug utilization review by client, provides demographic information of age and sex code, as well as clinical information as specific drug strength (GCN Column), number of doses and days supply.

Table 8
Atypical Antipsychotic Drug Utilization by Drug

year		clozapine (Clozaril®)	risperidone (Risperdal®)	olanzapine (Zyprexa®)	quetiapine (Seroquel®)
6mo. FY97	#RX	7266	7401	2583	
	# recipients	236	1463	597	
FY1998	#RX	16,176	18,314	11,693	1,895
	cost	1,393,060	2,184,840	2,347,263	198,683
	# recipients	306	2,318	1,623	395
	Ave. cost/RX	86.12*	119.30	200.74	104.85
	Ave. Rx/recipient	52.9	7.9	7.2	4.8

FY1999	#RX	13,501	21,475	17,254	6,447
	cost	1,397,360	2,586,710	3,674,809	871,357
	# recipients	306	2,635	2,157	876
	Ave. cost/RX	103.5*	120.45	212.98	135.16
	Ave. Rx/recipient.	44.1	8.1	8.0	7.4

* Clozaril prescriptions on average are filled for a week's supply, while risperidone, olanzapine, & quetiapine are typically for a month's supply.

B. Atypical Antipsychotic Agents - Pediatric Utilization

Figure 3 shows client utilization for atypical antipsychotics for ages 0 through 20 for fiscal year 1999.

Figure 3
Atypical Antipsychotic Drug Use, Ages 0-20

C. Atypical Antipsychotic Agents - Adult Utilization

Figure 4 shows client utilization of atypical antipsychotics from ages 0 to 100 for fiscal year 1999.

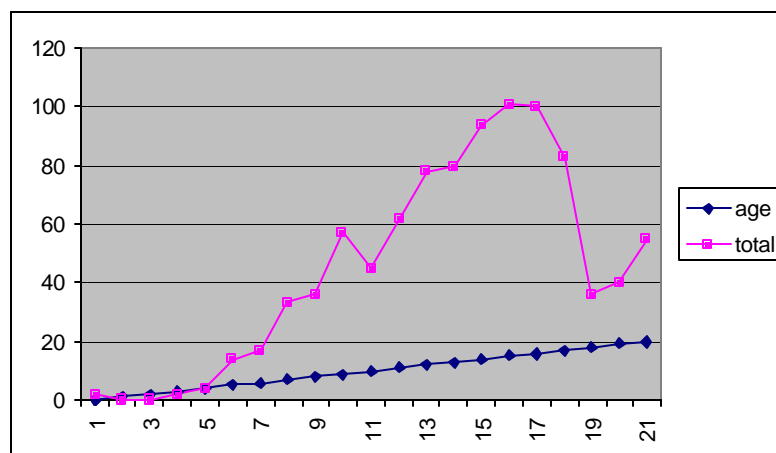
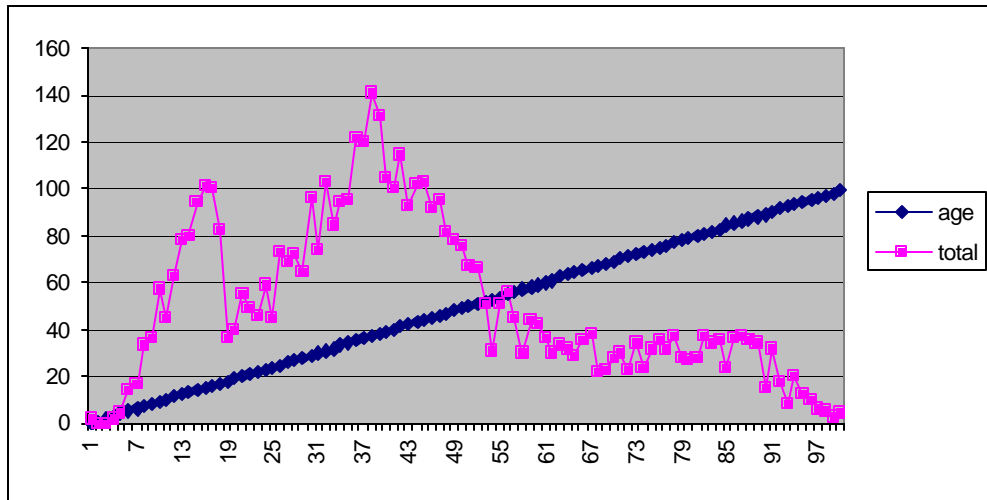


Figure 4
Atypical
Antipsychotics from
Ages 0 to 100



VIII M A N A G E D C A R E O R G A N I Z A T I O N S

Table 9, derived from **Attachment 6** shows a two-year comparison of the monthly averages for fee-for-service (FFS), health maintenance organization (HMO), and long-term-care-facility (LTCF) sectors for fiscal year 1998. It appears that the HMO physicians are trading an increase use of the pharmacy program for a decrease use of other resources. What is significant is the difference between

the average number of RXs for FFS clients and HMO clients. Also, HMO physicians are prescribing more costly prescriptions. HMO clients are using 0.29 more prescriptions per month than FFS. Taken together, HMO clients cost \$12.64 more per month than do the FFS clients. This works out to be more than 3.5 million dollars more for the HMO clients. These figures are somewhat skewed because of case mix. FFS clients are far more diverse as a whole compared to HMO client groups.

Table 9
FFS, LTCF, & HMO sectors

sector	Ave. No. of recipients	No. of RXS	Ave. monthly expenditure	Ave. No. of RXs per patient	Ave. \$ per RX	Ave cost per patient
FFS fy98	15,561	48,984	\$ 1,659,490	3.15	\$33.88	\$106.64
FFS fy99	16,744	54,655	\$ 2,042,826	3.26	\$37.38	\$122.00
% increase	7.6%	11.5%	23.0%	3.4%	10.3%	14.4%
HMO fy98	21,393	72,536	\$ 2,471,750	3.39	\$34.08	\$115.54
HMO fy99	23,252	82,655	\$ 3,137,569	3.55	\$37.95	\$134.64
% increase	8.6%	13.9%	26.9%	4.7%	11.3	16.5
LTCF fy98	8,734	51,007	\$ 1,456,013	5.84	\$28.55	\$166.71.
LTCF fy99	9,076	55,074	\$ 1,784,377	6.07	\$32.40	\$196.61
% increase	3.9%	7.9%	22.5%	3.9%	13.4%	17.9%

The LTCF sector showed the single largest increase per patient. This is explained by the dynamic changes in the generic drug industry. As reported last year, Mylan Drug cornered the market on chemicals for a large number of generic drugs and subsequently raised drug prices by as much as 400%. The anti-anxiety drugs lorazepam and alprazolam being prime examples. As noted earlier, the anti-anxiety drugs moved from 12th place to 7th place in expenditures, primarily due to Mylan's monopolistic

practices. The federal government is currently suing Mylan for breaking the trade laws.

IX MANAGEMENT OF SELECTIVE NEW DRUGS

The DUR Board has placed several new drugs on prior approval this past year, including Growth Hormone for Adults with Aids, Relenza®, Tamiflu®, and Panretin®. In November, the DUR Board moved to place antipsychotic drugs on prior approval in regards to children. Details have not been worked out. As noted earlier, the Cumulative 30 Day Maximum Units Loop has resulted in a decrease use of the "tryptans" for migraine headache, and Stadol NS, for a total savings of more than \$169,445. The DUR Board set the maximum number of doses per thirty days for each drug limited by this tool.

The DUR Board is one of the few sitting PEER review committees in the State. This past year, providers have brought difficult clinical cases before the DUR Board for review. One such case was two Medicaid clients with Stiff Man Syndrome. The Boards recommendation for use of oral Versed® saved the Division thousands of dollars a month.

X CONCLUSION

The Drug Program returned more than \$17,000,000 to the Department when drug rebates, co-pays, PRODUR offsets and other management tools are totaled up. Clients in managed care organizations continue to use more prescriptions and more costly prescriptions than the fee-for-service clients. Generic drug use continues to decline while generic drug prices continue to escalate. The average cost of a prescription continues a three-year trend of double digit increases. The DUR Board continues to play an active role in the Medicaid Drug Program. The Division is fortunate to have DUR Board members with high community profiles and acknowledged leaders in their fields.